

# Two S'pore artworks orbiting the Earth aboard space station

They are part of test flight for artists to learn how designs and materials perform in space

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Two locally designed artworks are now orbiting Earth aboard the International Space Station (ISS), as part of a 64-piece Moon Gallery collection of miniature works by international artists.

They reached the space station on yesterday on a cargo craft, and will spend the next 10 months as part of a test flight for artists to learn how the different designs and materials perform in the mi-

crogravity of space.

Moon Gallery plans to send the first permanent extraterrestrial art gallery of 100 works of art – each no larger than a cubic centimetre – to the Moon by 2025.

The two artworks from Singapore are 3D-printed metal cubes featuring unique patterns, each side measuring 0.98cm.

They were designed by Singaporean artist and architect Lakshmi Mohanbabu, based on the concepts of unity, diversity and complexity in humankind.

The first cube, titled The Cube Of Interaction, was prototyped in collaboration with Associate Professor Daniel New from the Singapore Centre for 3D Printing at Nanyang Technological University (NTU). They created two iterations of the cube in different materials and identified the most suitable material. The final version was then manufactured by a local vendor via machining.

The second cube, named Structure & Reflectance, features four unique faces that were made by changing the crystal orientation of steel during the 3D printing process.

This is a proprietary technique



(From left) Singaporean artist and architect Lakshmi Mohanbabu, whose two miniature artworks The Cube Of Interaction (left) and Structure & Reflectance (right), seen here represented as larger models, are in orbit on the International Space Station; Professor Paulo Bartolo, Associate Professor Daniel New and Assistant Professor Matteo Seita. The 3D-printed metal cubes feature unique patterns, with each side measuring 0.98cm. ST PHOTO: KEVIN LIM

developed by Assistant Professor Matteo Seita and his team from NTU's School of Mechanical and Aerospace Engineering and the School of Materials Science and

Engineering.

The project was supported by the National Additive Manufacturing Innovation Cluster (Namic), a national programme office that ac-

celerates the adoption and commercialisation of additive manufacturing technologies.

Like the other artworks, the two cubes are encased in an 8cm by 8cm tray, each in a 1cm by 1cm cell where they can, depending on their size and design, float freely.

"Each piece in this tiny gallery with a big mission explores the meaning of a shared human culture," states an inscription on the Moon Gallery.

While it is hoped that the gallery will spark conversation and bring joy to the astronauts aboard the space station, its mission also has a scientific purpose, said the Moon Gallery Foundation, a non-profit organisation based in the Netherlands that promotes collaboration between the creative and space/technology sectors.

At a hybrid NTU event celebrating the successful launch of the Moon Gallery to the ISS yesterday, Second Minister for Finance and National Development Indraneel Rajah said that Namic had supported over 240 initiatives in various industries like healthcare, marine offshore, aerospace and construction.

It will play a major role in the future of distributed manufacturing and digital trade.

"For example, 3D printing in emerging industries such as cellular agriculture and space technology can be a key enabler in strengthening Singapore's position as a leading trade and manufacturing hub," added Ms Indraneel, who is also Minister in the Prime Minister's Office.

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